ENVIRONMENTAL ASSESSMENT

GRAZING AUTHORIZATIONS

For

SCATTERED TRACTS ALLOTMENTS
(61001, 62009, 62014, 62015 & 62016)

In North West Portion Roswell Field Office Area
(See Map)

EA-NM-510-2008-119

July 2008

U.S. Department of the Interior
Bureau of Land Management
Roswell Field Office
Roswell, New Mexico

Bureau of Land Management, Roswell Field Office
Environmental Assessment Checklist, EA# NM-510-2008-119

Resources	Not Present on Site	No Impacts	May Be Impacts	Mitigation Included	BLM Reviewer	Date
Air Quality			X	X	/s/ Michael McGee	8/11/08
Soil			X	X		
Watershed Hydrology			X	X		
Floodplains	X					
Water Quality - Surface			X	X	SWA Spec/Hydro.	
Water Quality - Ground		X			/s/ John S. Simitz	8/11/08
Cultural Resources		X			Pat Flanary	8/06/08
Native American Religious Concerns		X			Pat Flanary	8/06/08
Paleontology		X			Archaeologist	
Areas of Critical Environmental Concern	X				/s/ J H Parman Plan & Env. Coord.	7/23/08
Farmlands, Prime or Unique					/s/Tate Salas	8/11/08
Rights-of-Way	X	X			Realty	
Invasive, Non-native Species		X				8//4/08
Vegetation		X			*/s/ Joseph M. Navarro*	
Livestock Grazing		X			Range Mgmt. Spec.	
Wastes, Hazardous or Solid		X			/s/ Brian Novosak HMS/ EPS	8/6/08
Threatened or Endangered Species	X					
Special Status Species	X					
Wildlife			X	X	/s/ D Baggao	8/7/08
Wetlands/Riparian Zones	X				Biologist	
Wild and Scenic Rivers	X					
Wilderness	X					
Recreation		X			/s/Bill Murry	8/14/08
Visual Resources			X			
Cave/Karst			X		Outdoor Rec. Plnr.	
Environmental Justice		X				8/6/08
Public Health and Safety		X			/s/ Brian Novosak Env .Prot. Spec.	
Solid Mineral Resources		√			/s/ Jerry Dutchover Geo/SPS	07/30/08
Fluid Mineral Resources		X			Geologist /s/ John S. Simitz	08/11/08

FINDING OF NO SIGNIFICANT IMPACT/RANIONALE

FINDING OF NO SIGNIFICANT IMPACT: I have reviewed this environmental assessment including the explanation and resolution of any potentially significant environmental impacts. I have determined the proposed action will not have significant impacts on the human environment and that preparation of an Environmental Impact Statements (EIS) is not required.

Rational for Recommendations: the proposed action would not result in any undue or unnecessary environmental degradation. The proposed action will be in compliance with the Roswell Resource Management Plan and Record of Decision (October, 1997).

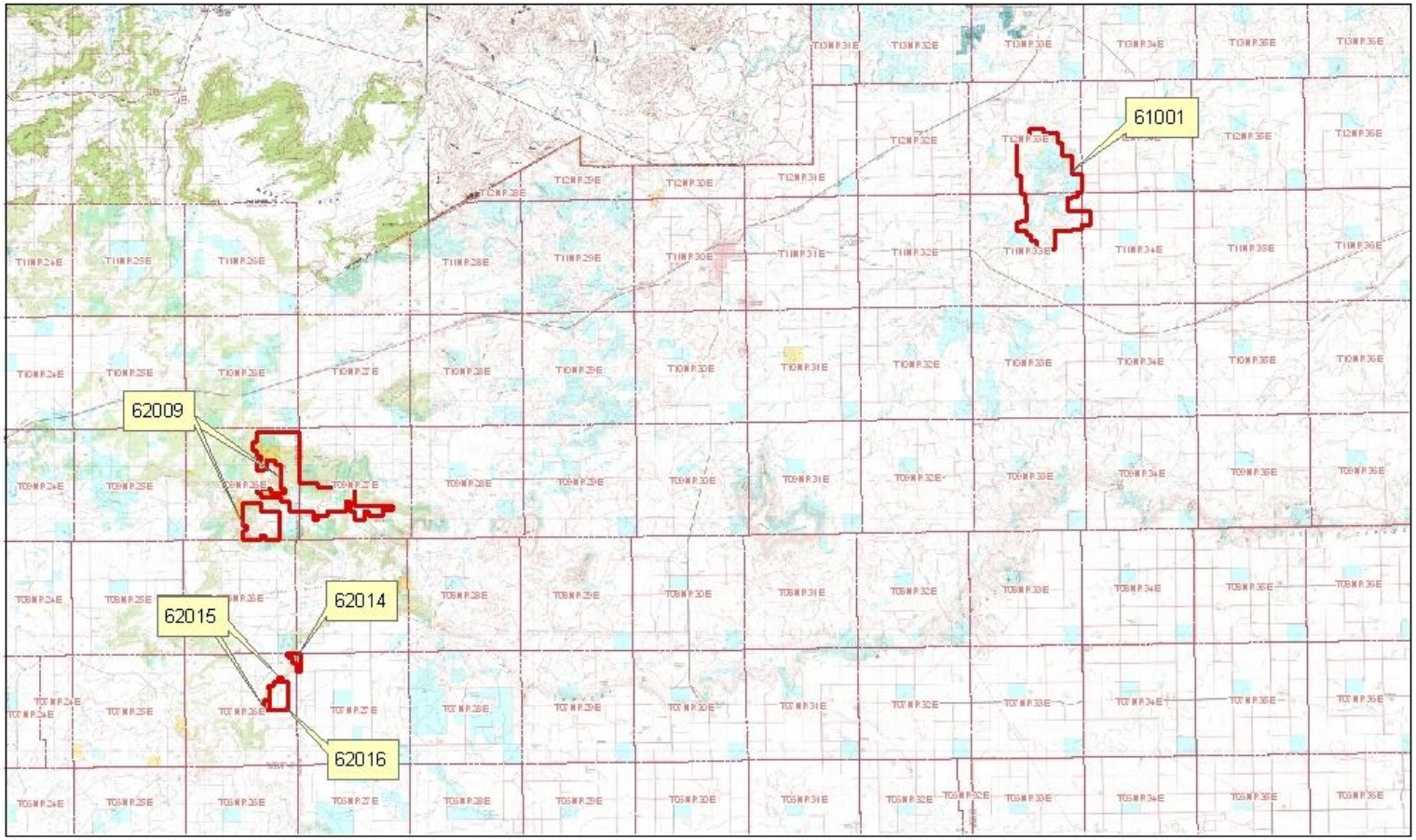
PROPOSED DECISION RECORD

Proposed Decision: It is my decision to authorize the issuance of a term grazing lease of public land on the Scattered Tracts Allotments which are numbered #61001, #62009, #62014, #62015 & #62016. Any additional mitigation measures identified formulated into stipulations, terms and conditions. Any comments made to this proposed treatment were considered and any necessary changes have been incorporated into the environmental assessment.
In accordance with the 43 CFR 4160.2, any applicant, lessee, or other affected interests may protest this proposed decision in person or in writing to the authorized officer within 15 days after receipt of this decision. Please be specific in your points of protest. In the absence of a protest, this decision will become final without further notice.
Written appeal may be filed to the Final Decision for the purpose of a hearing before an administrative law judge under 43 CFR 4.470. A period of 30 days after receipt of the Final Decision is provided in which to file an appeal in this office. (43 CFR 4160.3 (c))

/s/ Brad Pendley 9-9-08

Brad Pendley Date
Assistant Field Office Manager- Resources

Scattered Tracts Allotments
(61001, 62009, 62014, 62015, 62016)



Legend

Allotments

RFO Township/Range

Surface Ownership

Bureau of Land Management
Bureau of Reclamation
Dep t.of Agriculture
Dep t.of Defense
Dep t.of Energy
Forest Service
Fish & Wildlife Service
Tribal
National Park Service
Private
State
State Game & Fish
State Park
Valles Caldera National Preserve

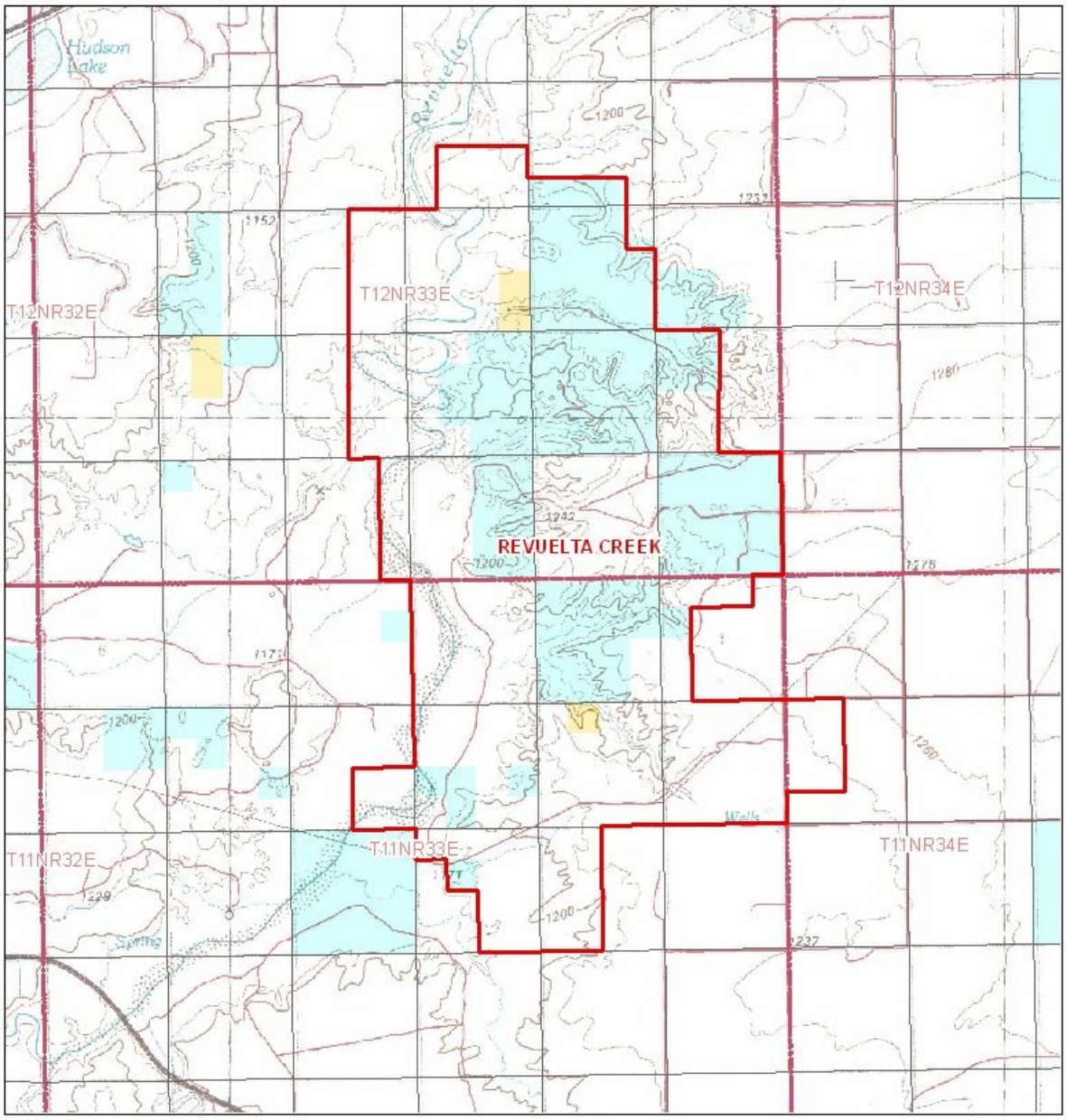
N

0 3 6 12 18 24 Miles

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

Map Created by an RFO GIS Specialist:
July 21, 2008

REVUELTA CREEK
61001



Legend

Allotments
Township/Range
Sections

Surface Ownership

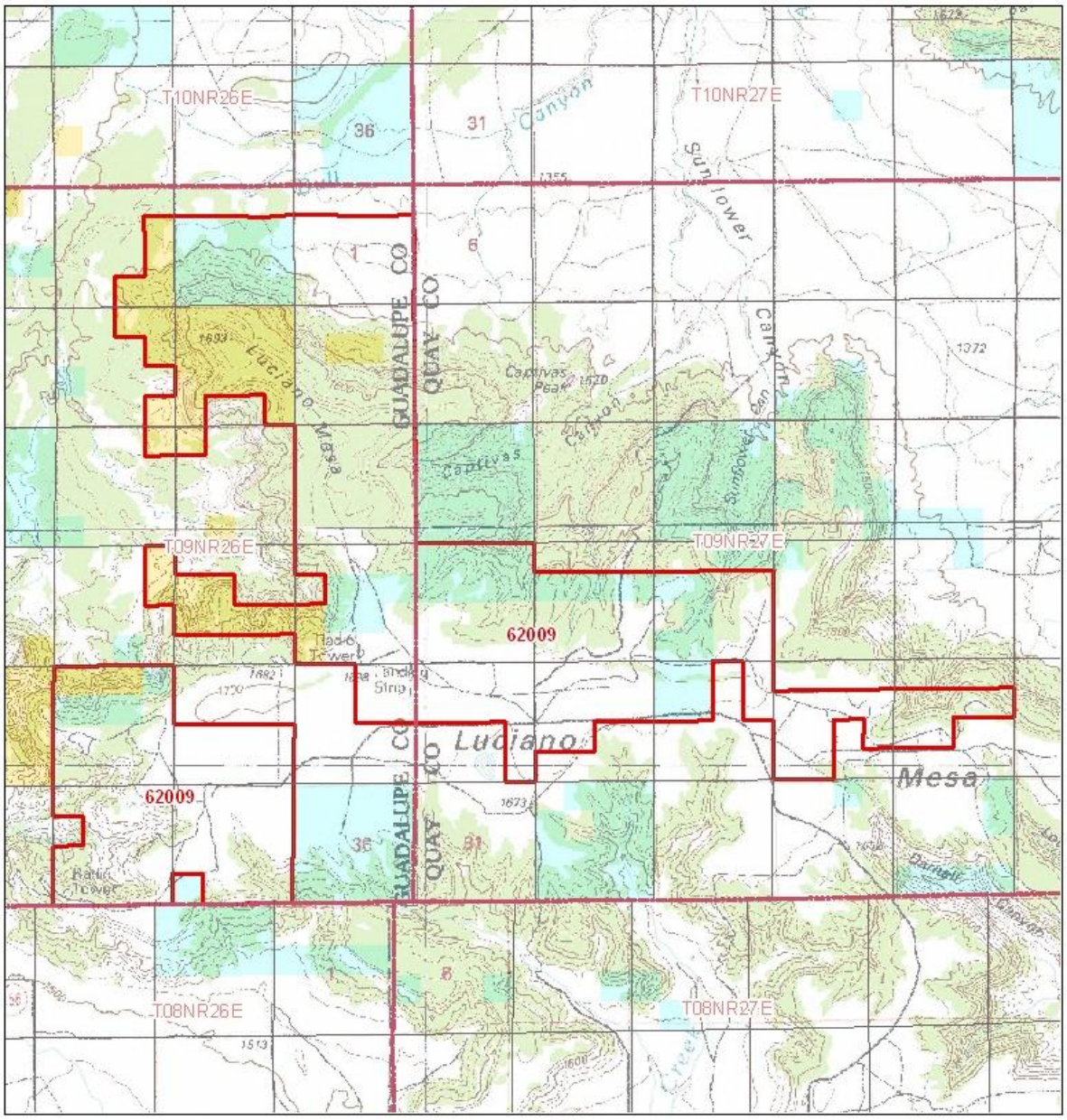
Bureau of Land Management
Bureau of Reclamation
Dept. of Agriculture
Dept. of Defense
Dept. of Energy
Forest Service
Fish & Wildlife Service
Tribal
National Park Service
Private
State
State Game & Fish
State Park
Valles Caldera National Preserve

N

0 0.375 0.75 1.5 2.25 3 Miles

Map Created by an RFO GIS Specialist
July 21, 2008

LUCIANO MESA
62009



Legend

Allotments
Township/Range
Sections

Surface Ownership

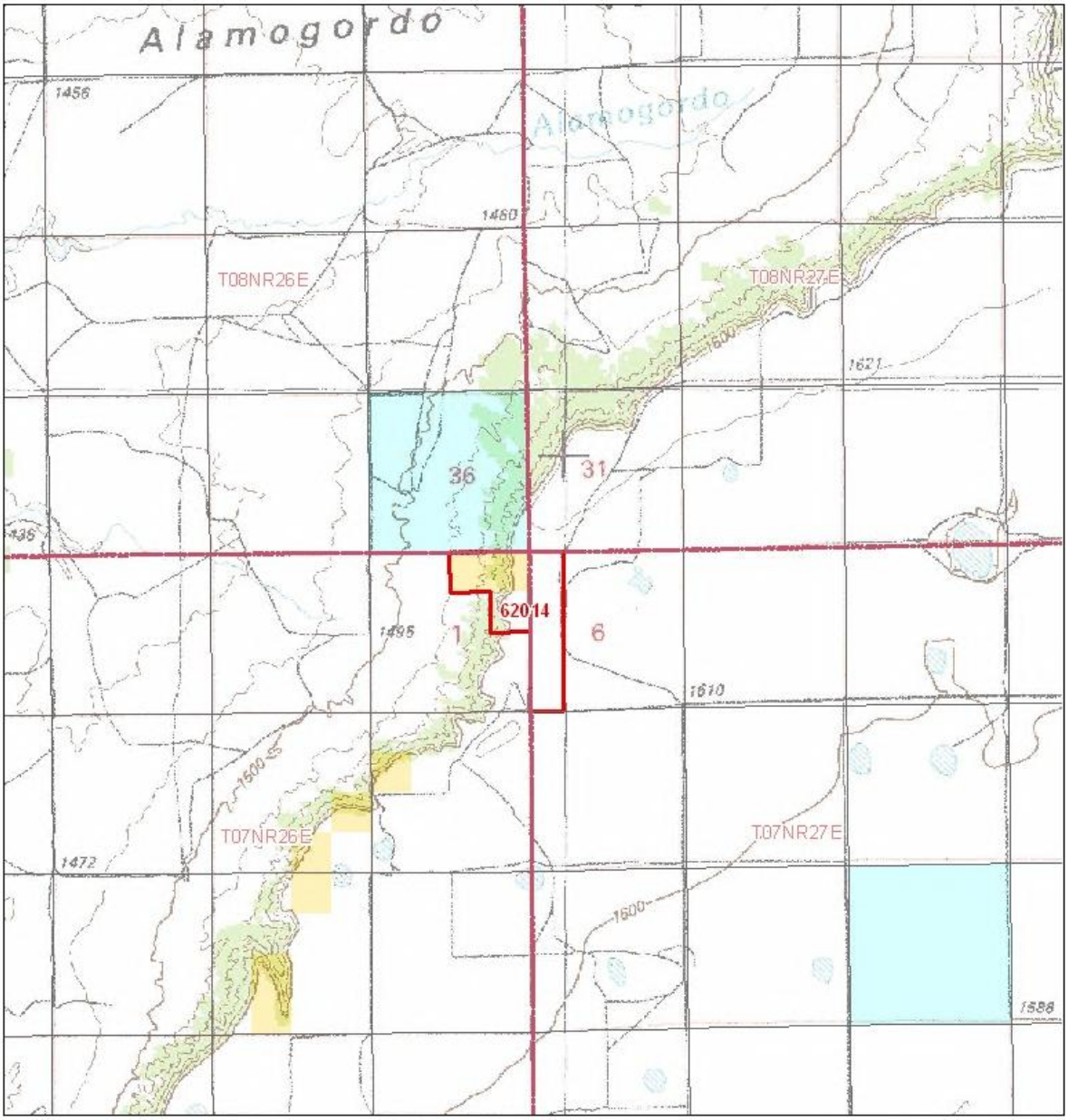
- Bureau of Land Management
- Bureau of Reclamation
- Dept. of Agriculture
- Dept. of Defense
- Dept. of Energy
- Forest Service
- Fish & Wildlife Service
- Tribal
- National Park Service
- Private
- State
- State Game & Fish
- State Park
- Valles Caldera National Preserve

N

0 0.5 1 2 3 4 Miles

Map Created by an RFO GIS Specialist:
July 21, 2008

ALAMOGORDO CREEK
62014



Legend

Allotments
Township/Range
Sections

Surface Ownership

Bureau of Land Management
Bureau of Reclamation
Dept. of Agriculture
Dept. of Defense
Dept. of Energy
Forest Service
Fish & Wildlife Service
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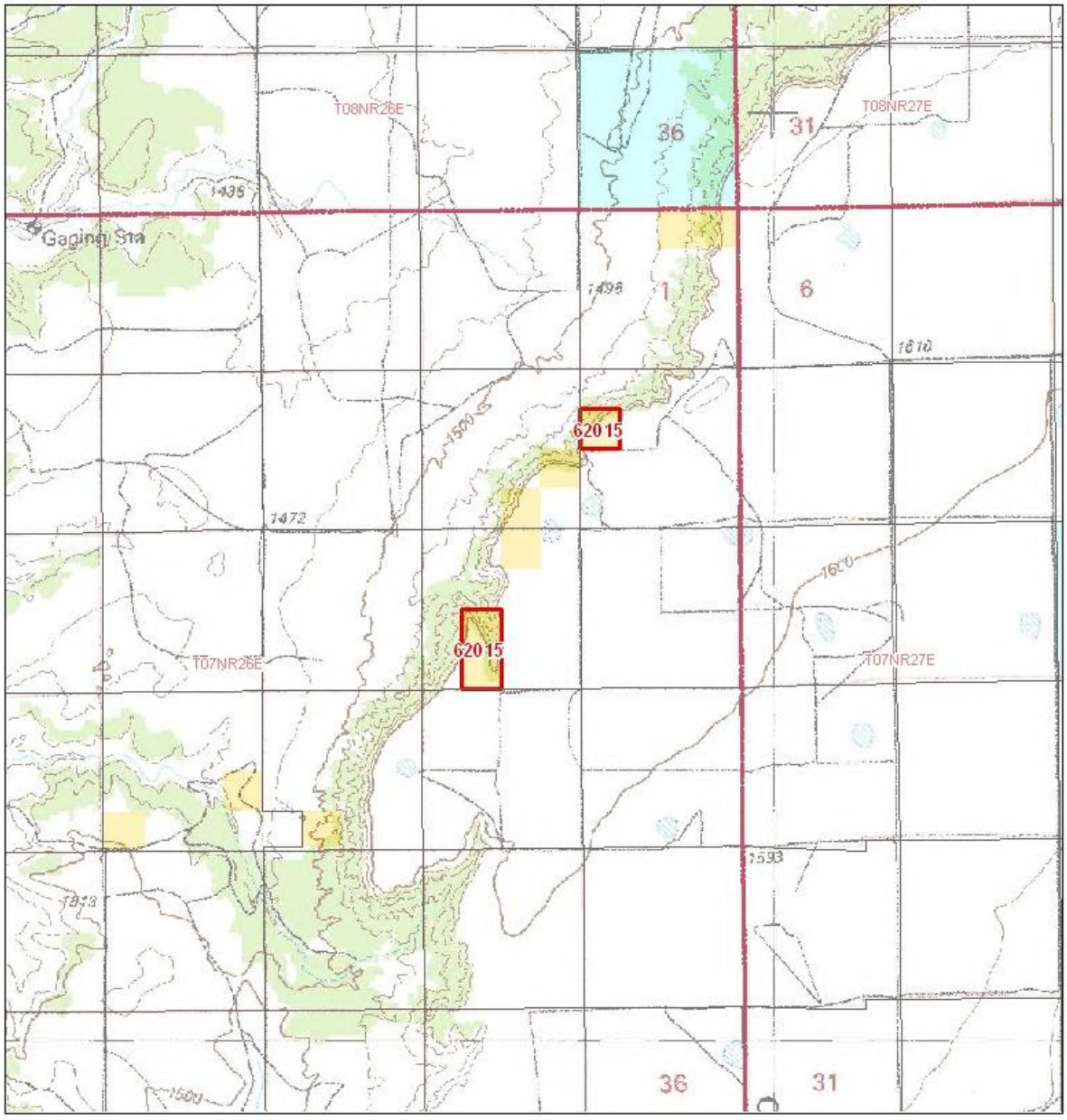
Map Created by an RFO GIS Specialist:
July 21, 2008

WILLIAMS PLACE
62015



Legend

Township/Range
Sections
Allotments

Surface Ownership

Bureau of Land Management
Bureau of Reclamation
Dept. of Agriculture
Dept. of Defense
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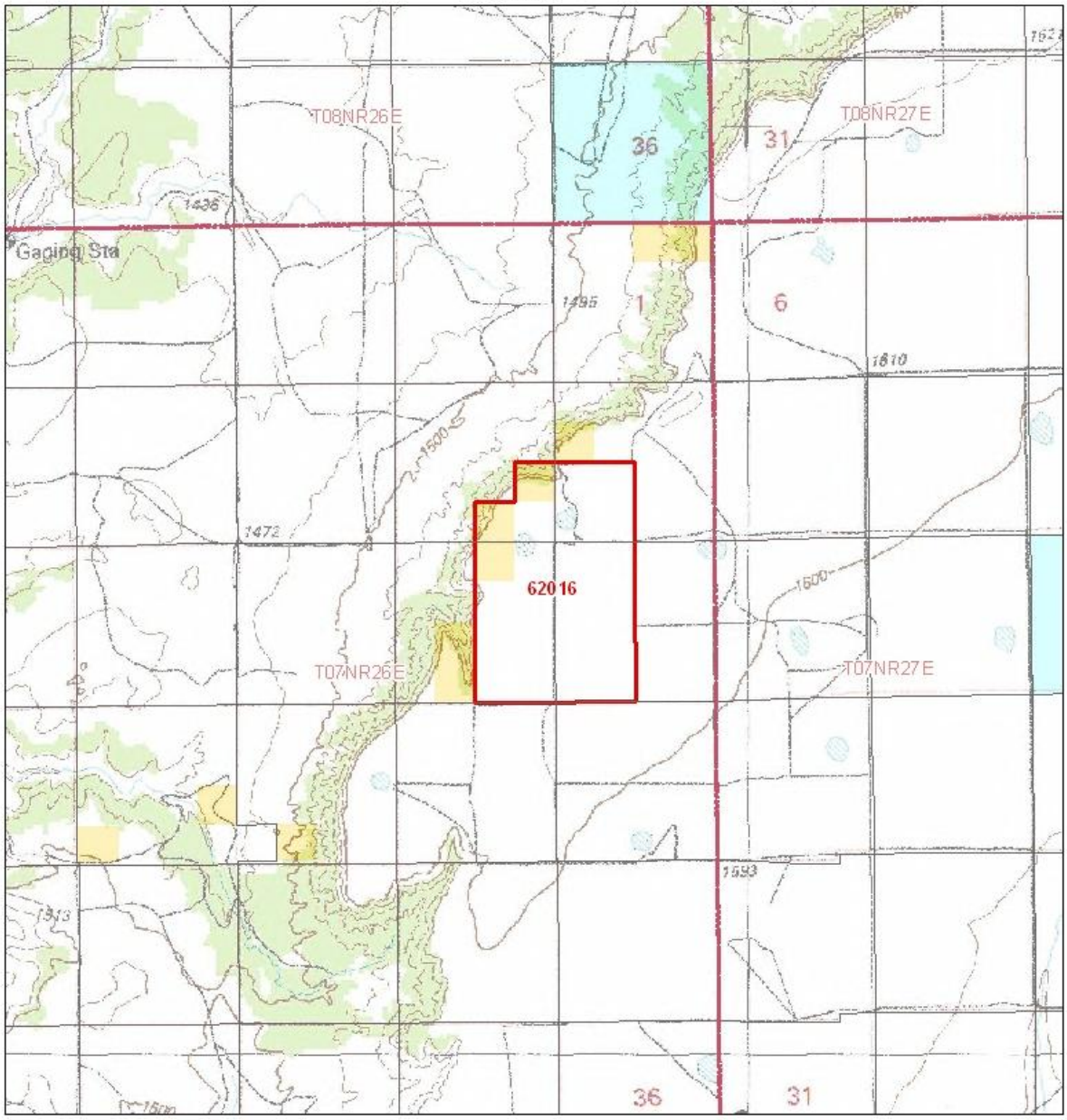
Map Created by an RFO GIS Specialist:
July 21, 2008

TWIN PLAYAS
62016



Legend

Allotments
Township/Range
Sections

Surface Ownership

Bureau of Land Management
Bureau of Reclamation
Dept. of Agriculture
Dept. of Defense
Dept. of Energy
Forest Service
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Map Created by an RFO GIS Specialist:
July 21, 2008

I. BACKGROUND

A. Purpose And Need For The Proposed Action

The purpose of this document is to assess the impacts of issuing a new grazing permit to authorize livestock grazing on public range on allotments #61001, #62009, #62014, #62015 & #62016. When authorizing livestock grazing on public range, the Bureau of Land Management (BLM) must conduct a site-specific NEPA analysis before issuing a permit to authorize livestock grazing. This environmental assessment fulfills the NEPA requirement by providing the necessary site-specific analysis of the effects of issuing a new grazing permit on these allotments. The permit would be needed to specify the types and levels of use authorized, and the terms and conditions of the authorization pursuant to 43 CFR §§4130.3, 4130.3-1, 4130.3-2, and 4180.1.

The scope of this environmental assessment is limited to the effects of issuing a new grazing permit on these allotments. Over time, the need could arise for subsequent management activities which relate to grazing authorization. These activities could include vegetation treatments (e.g., prescribed fires, herbicide projects), range improvement projects (e.g., fences, water developments), and others. Future rangeland management actions related to livestock grazing would be addressed in project-specific NEPA documents as they are proposed.

This environmental assessment specifically addresses the impacts of issuing a grazing permit on these allotments and does so within the context of overall BLM management goals. Allotment management activities would have to be coordinated with projects intended to achieve those other goals. For example, a vegetation treatment designed to enhance watershed condition or wildlife habitat may require rest from livestock grazing for one or more growing season. Requirements of this type would be written into the permit as terms and conditions.

B. Conformance with Land Use Planning

The proposed action conforms to the Roswell Approved Resource Management Plan (RMP) and Record of Decision (BLM 1997) as required by 43 CFR 1610.5-3 and 2001 New Mexico Standers for Public Land Health and Guidelines for Livestock Grazing Management EIS

C. Relationships to Statutes, Regulations, or Other Plans

The proposed action and alternatives are consistent with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), as amended; the Clean Water Act (33 U.S.C. 1251 et seq.), as amended; the Endangered Species Act (16 U.S.C. 1535 et seq.) as amended; the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); Executive Order 11988, Floodplain Management; and Executive Order 11990, Protection of Wetlands.

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action - Current Livestock Management

The proposed action is to issue a ten-year permit to graze cattle on five allotments (See Table 1.). Current permitted use is based on long-term monitoring and rangeland conditions. Additionally Rangeland Health Assessments have been completed and all allotments meet the Standards for Public Land Health.

Table 1. Animal Units/Animal Unit Months

Allotment Number	Allotment Name	Acres of Public Land	Percent Public Land	Animal Units Authorized	Animal Unit Months Authorized	Permitted Animal Units	Permitted Animal Unit Months
61001	Revuelta Creek	120	100	2	24	2	24
62009	Luciano Mesa	1,520	100	23	276	23	276
62014	Alamogordo Creek	80	100	1	4	1	4
62015	Williams Place	120	100	3	36	3	36
62016	Twin Playas	120	100	3	36	3	36
Totals		1,960		32	376	32	376

There would be no changes from current livestock management as conducted by the permittees, or to existing range improvements already in place. Future projects or activities identified by the permittees or the Bureau of Land Management can still be considered for implementation. Rangeland monitoring would continue on these allotments and changes to livestock management would be made as necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken to mitigate those impacts.

B. No Grazing Alternative

Under this alternative a new grazing permit would not be issued for these allotments. No grazing would be authorized on Federal land on these allotments under this alternative. Under this alternative and based on the land status pattern within these allotments, new fences would be required to exclude grazing on the Federal land.

C. Alternatives Considered But Not Analyzed

Grazing with reduced numbers – BLM considered authorizing grazing with reduced numbers on these allotments. Grazing with reduced numbers would produce impacts similar to the proposed action. Additionally, these allotments meet the Standard for Public Land Health and monitoring studies do not indicate changes are necessary. Therefore, BLM will not further analyze this alternative.

III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

A. General Setting

These allotments consist of small scattered tracts of public land and are located outside the grazing district boundary in the northeastern portion of the Roswell Field Office.

The climate is semi-arid with normal annual temperatures ranging from 20^0F to 95^0F at Santa Rosa. Average annual precipitation is approximately 12.6 inches, primarily as rainfall. Annual precipitation ranges from 10 inches to 14 inches.

B. Affected Resources

The following resources or values are not present or would not be affected by the authorization of livestock grazing on these allotments: Areas of Critical Environmental Concern, Cultural Resources, Floodplains, Native American Religious Concerns, Prime or Unique Farmland, Minority/Low Income Populations, Hazardous or Solid Wastes, Wild and Scenic Rivers, and Wilderness. Affected resources and the impacts resulting from livestock grazing are described below.

1. Livestock Management

Affected Environment

In the past, these allotments have been permitted to be grazed by cattle yearlong. Grazing is by a cow/calf operation. The authorized use displayed in Table 1. was analyzed in previous environmental assessments (see Table 2).

Table 2.

Allotment Number	Allotment Name	EA Number	Dated
61001	Revuelta Creek	NM-066-98-093	01/19/1999
62009	Luciano Mesa	NM-060-99-140	08/12/1999
62014	Alamogordo Creek	NM-060-99-150	08/09/1999
62015	Williams Place	NM-066-98-139	01/19/1999
62016	Twin Playas	NM-066-98-127	04/15/1999

These allotments contain approximately 21,322 total acres (see Location Map). Of this total, 1,960 acres are Federal land and the remaining 19,362 acres are private and state. Current range improvement projects for the management of livestock include earthen tanks, wells, and several drinking troughs with associated pipelines, pasture and boundary fences and corrals.

2. **Soil**

Regnier soil makes up 40 percent of the map unit. This map unit is in the Pecos-Canadian Plains and Valleys Major Land Resource Area. This soil is on a hillslope. The parent material consists of redbed alluvium and colluvium derived from sandstone and shale The depth to a restrictive feature is 12 to 20 inches to a bedrock (paralithic). It is well drained. The slowest soil permeability within a depth of 60 inches is moderately slow. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is moderate. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 25 percent. In the soil profile, the maximum salinity is very slight, and there are no sodic horizons. This component is in the CP-2, ecological site. It is non-irrigated land capability subclass 6c.

Quay soil makes up 85 percent of the map unit. This map unit is in the Pecos-Canadian Plains and Valleys Major Land Resource Area. The runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is high, and shrink swell potential is moderate. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. In the soil profile, there are no saline horizons, This component is in the HP-2, ecological site. It is irrigated land capability subclass 2e. It is non-irrigated land capability subclass 6e.

Slaughter soil makes up 75 percent of the map unit. This map unit is in the Southern High Plains Major Land Resource Area. This soil is on a plain. The parent material consists of material derived from Ogallala Formation The depth to a restrictive feature is 9 to 20 inches to a petrocalcic. It is well drained. The slowest soil permeability within a depth of 60 inches is moderately slow. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is moderate. Annual flooding is none, and annual ponding is none. The minimum depth to a water table is greater than 6 feet. The maximum calcium carbonate equivalent within a depth of 40 inches is 15 percent. In the soil profile, there are no saline horizons, and there are no sodic horizons. This component is in the SHALLOW, ecological site. It is irrigated land capability subclass 4e. It is non-irrigated land capability subclass 4e.

La Lande soil makes up 90 percent of the map unit. This map unit is in the Pecos-Canadian Plains and Valleys Major Land Resource Area. The runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. It is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is high, and shrink swell potential is moderate. Annual flooding and ponding are none. The minimum depth to a water table is greater than 6 feet. In the soil profile, there are no saline horizons, This component is in the HP-2, ecological site. It is irrigated land capability subclass 2e. It is non-irrigated land capability subclass 6e.

3. **Vegetation**

These allotments are within the Grassland Plant Community as identified in the Roswell Resource Management Plan/Environmental Impact Statement (RMP/EIS). Vegetative communities managed by the Roswell Field Office are identified and explained in RMP/EIS. Appendix 11 of the draft RMP/EIS describes the Desired Plant Community (DPC) concept and identifies components of each community. Distinguishing features for the grassland community is that grass species typically comprise 75% or more of the potential plant community. This community also includes shrub, half-shrub, and forb species. Percentages of grasses, forbs, and shrubs actually found at a particular location will vary with recent weather factors, past resource uses and potential of the site.

Primary ecological (range) sites on these allotments are HP-2 Loamy, Shallow and CP-2 Sandy Loam and North Breaks. Ecological site descriptions are available for review at the Roswell BLM office or any Natural Resources Conservation Service office. These descriptions may also be accessed at www.nm.nrcs.usda.gov.

Inventory transect sites were established on all five allotments in 1991. Most recent monitoring data was collected in year 2006. Current vegetative data indicates a consistent composition in the grass species to forbs and shrubs.

4. **Wildlife:**

These allotments provide habitat for small animals, birds, rodents, and a sustainable population of mule deer *(Odocoileus hemionus)* and pronghorn *(Antilocapra americana).* The area does contain brush or tree species that could provide quality cover for larger animals. Other game species occurring within this area include mourning dove *(Zenaida macroura),* and scaled quail *(Callipepla squamata).* Raptors that utilize this area on a more seasonal basis include Swainson's hawk *(Búrteo swáinsoni*), red-tailed hawk *(Buteo jamacensis),* ferruginous hawk *(Buteo regalis),* American kestrel *(Fálco sparvérius),* and great-horned owl *(Bubo virginianus).* Numerous passerine birds utilize grassland areas due to a variety of grasses, forbs, and shrubs. Most common include the western meadowlark *(Sturnella neglecta),* mockingbird *(Mimus polyglottos),* horned lark *(Eremophila alpestris),* killdeer *(Charadrius vociferus),* loggerhead shrike *(Lanius ludovicianus),* and vesper sparrow *(Pooecetes gramineus).*

This warm prairie environment supports a large number of reptile species. More common reptiles include short-horned lizard *(Phrynosoma douglasii),* lesser earless lizard *(Holbrookia maculata),* eastern fence lizard *(Sceloporus undulatus),* coachwhip *(Masticophis flagellum),* bullsnake *(Pituophis melanoleucus sayi),* prairie rattlesnake *(Crotalus v. viridis),* and western rattlesnake *(Crotalus viridis).*

5. **Threatened and Endangered Species**

There are no known resident populations of threatened or endangered species on these allotments. A list of federal threatened, endangered, and candidate species reviewed for this EA can be found in Appendix 11 of the Roswell RMP (AP11-2).

6. **Livestock Management**

These allotments are all "C" (Custodial) category due to small amounts of public land present with potential for resource improvement.

7. **Visual Resources**

These allotments are located within a Class III & IV Visual Resource Management area. This means that contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, these changes should repeat the basic elements of landscape.

8. **Water Quality Drinking/Ground**

No perennial surface water is found on public land on these allotments. Fresh water sources are in Quaternary Alluvium and San Andres Formation. Depth to fresh water has been found at approximately 180 feet in Quaternary Alluvium. Depth to fresh water has been found from approximately 250 feet to 500 feet in San Andres Formation (New Mexico State Engineer Office data).

9. **Air Quality**

Air quality in the region is generally good. These allotments are in a Class II area for the Prevention of Significant Deterioration of air quality as defined in the public Clean Air Act. Class II areas allow a moderate amount of air quality degradation.

10. **Recreation**

Since these allotments have no facility-based recreational activities, only dispersed recreational opportunities occur on this land. Recreational activities that may occur include hunting, caving, sight-seeing, off highway vehicle use, primitive camping, horseback riding and hiking.

Off Highway Vehicle designation for public land within these allotments is classified as "Limited" to existing roads and trails.

11. **Cave/Karst**

These allotments are not located within a designated area of low karst and cave potential. A complete significant cave or karst inventory has not been completed for public land located on these allotments. No significant caves or karst features are known to exist within this allotment.

12. **Noxious Weeds**

Noxious and Invasive species: A noxious weed is defined as a plant that causes disease or has other adverse effects on human environment and is, therefore, detrimental to public health and to agriculture and commerce of the United States. Generally, noxious weeds are aggressive, difficult to manage, parasitic, are carriers or hosts of harmful insects or disease, and are either native, new to, or not common in the United States. In most cases, however, noxious weeds are non-native species.

The list currently includes the following weeds:

1) African rue *(Peganum harmala)*,
2) black henbane *(Hyoscyamus niger)*,
3) bull thistle *(Cirsium vulgare)*,
4) camelthorn *(Alhagi pseudalhagi)*,
5) Canada thistle *(Cirsium arvense)*,
6) dalmatian toadflax *(Linaria genistifolia ssp. Dalmatica)*,
7) goldenrod, *(Solidago Canadensis)*

8) leafy spurge *(Euphorbia esula),*
9) Malta starthistle *(Centaurea melitensis),*
10) musk thistle *(Carduus nutans),*
11) poison hemlock *(Conium maculatum),*
12) purple starthistle *(Centaurea calcitrapa),*
13) Russian knapweed *(Centaurea repens),*
14) Scotch thistle *(Onopordum acanthium),*
15) spotted knapweed *(Centaurea maculosa),*
16) teasel *(Dipsacus fullonum),*
17) yellow starthistle *(Centaurea solstitialis),*
18) yellow toadflax *(Linaria vulgaris),*
19) Russian olive *(Elaeagnus angustifolia),*
20) Saltcedar *(Tamarix chinensis),*
21) Siberian elm *(Ulmus pumila).*

Of the noxious weeds listed, the ones with known populations in the Roswell Field Office are African rue, non-native thistles *(Cirsium* spp.) such as bull thistle and Canada thistle, leafy spurge, goldenrod, Malta starthistle, Russian knapweed, Russian olive, Siberian elm, poison hemlock, teasel, musk thistle and Scotch thistle. Also "problem weeds" of local concern are cocklebur *(Xanthium* spp.*)*, buffalobur *(Curcurbita foetidissima)* and spiny cocklebur *(Xanthium spinosum).* "Problem weeds" are those weeds which may be native to the area but whose populations are out of balance with other local flora.

Infestations of noxious weeds can have a disastrous impact on biodiversity and natural ecosystems. Noxious weeds affect native plant species by out-competing native vegetation for light, water and soil nutrients. Noxious weeds cause estimated losses to producers $2 to $3 billion annually. These losses are attributed to: (1) Decreased quality of agricultural products due to high levels of competition from noxious weeds; (2) decreased quantity of agricultural products due to noxious weed infestations; and (3) costs to control and/or prevent the noxious weeds.

Noxious weeds can negatively affect livestock and dairy producers by making forage either unpalatable or toxic to livestock, thus decreasing livestock productivity and potentially increasing producers' feed and animal health care costs. Increased costs to operators are eventually borne by consumers.

Noxious weeds also affect recreational uses, and reduce realty values of both directly influenced and adjacent properties.

Recent federal legislation has been enacted requiring state and county agencies to implement noxious weed control programs. Monies would be made available for these activities from the federal government, generated from the federal tax base. Therefore, all citizens and taxpayers of the United States are directly affected when noxious weed control prevention is not exercised.

13. Floodplains

No impacts to floodplains are known. By keeping structures out of floodplains, impacts should not occur.

IV. Environmental Impacts

A. Impacts of the Proposed Action

1. Soil

Grazing activities will continue to have some impact to soil. These impacts may include: removal of standing vegetation and litter; soil compaction along livestock trails or soil compaction may occur if livestock are concentrated during prolonged periods when soil is wet. These effects can lead to reduced infiltration rates and increased runoff. Reduced vegetative cover and increased runoff can result in higher erosion rates and soil losses, making it more difficult to produce forage and to protect soil from further erosion. These adverse effects can be greatly reduced by maintaining adequate vegetative cover on the soil.

Proper utilization levels and grazing distribution patterns are expected to retain sufficient vegetative cover on this allotment as a whole and this would maintain the soil stability. Soil compaction and excessive vegetative use would occur at small, localized areas such as drinking locations, along trails and at bedding areas. Positive effects from this proposed action include speeding up of nutrient cycling process and chipping of soil crust by hoof action may stimulate seedling growth and water infiltration.

2. Vegetation

Vegetation would continue to be grazed and trampled by domestic livestock as well as other herbivores. Ecological condition and trend is expected to remain stable and/or improve over long-term with proposed authorized number of livestock and existing pasture management. Rangeland monitoring data indicates that there is an adequate amount of forage for multiple resource use objectives.

3. Wildlife

Domestic livestock would continue to utilize vegetative resources needed by a variety of wildlife species for life history functions within this allotment. The magnitude of livestock grazing impacts on wildlife is minimal in this area. Cover habitat for wildlife would remain same as existing situation. Maintenance and operation of existing base waters would continue to provide dependable water sources for wildlife, as well as livestock.

4. Livestock Management:

No adverse impacts are anticipated under this proposed action. If future monitoring studies indicate a need for an adjustment in livestock numbers, this determination will be made in accordance with established protocols.

Under the Proposed Action, livestock would continue to graze public land within these allotments. Existing pasture configurations and water developments would remain the same. Livestock management would still follow the single-herd rotation system.

Under No-Grazing Alternative, there would be no livestock grazing authorized on public land. Public land would have to be fenced apart from private and state otherwise livestock would be considered in trespass if found grazing on public land (43 CFR 4140.1(b)(1)). Exclusion of livestock from public land would require new fence. This expense would be borne by the private landowner. Range improvements on public land would not be maintained and the BLM would have to compensate the permittee if any of the improvements were cost shared at the time of their authorization.

Under the No-Grazing Alternative, the overall livestock operation would be reduced by the AU's attached to public land (see Table 1.). This could have adverse economic impacts on all permittees.

Cumulative impacts of the grazing and no grazing alternatives were analyzed in Rangeland Reform '94 Draft Environmental Impact Statement (BLM and USDA Forest Service 1994) and in the Roswell Resource Area Draft RMP/EIS (BLM 1994). The no livestock grazing alternative was not selected in either document.

5. **Visual Resources**:

Continued grazing of livestock would not affect landscape form or color. Primary appearance of vegetation within these allotments would remain.

6. **Water Quality Drinking/Ground:**

Direct impacts to surface water quality would be minor, short-term impacts during storm-flow. Indirect impacts to water-quality related resources, such as fisheries, would not occur. This proposed action would not have a significant effect on ground water. Livestock would be dispersed over these allotments, and soil would filter potential contaminants.

7. **Air Quality:**

Dust levels under this proposed action would be slightly higher than under the no grazing alternative due to allotment management activities. Levels would be within limits allowed in a Class II area for Prevention of Significant Deterioration of air quality.

8. **Recreation:**

Grazing should have little or no impact on dispersed recreational opportunities within these allotments. Evidence or presence of livestock can negatively affect visitors who desire solitude, unspoiled landscape views, or to hike without seeing signs of livestock. However, grazing can benefit some forms or recreation, such as hunting, by creating new water sources for game animals.

9. **Caves/Karst**:

No known significant cave or karst features are known to exist on these allotments. There is a low potential that caves do exist in this area.

10. **Non-native and Invasive species**:

Currently, there are no known populations of noxious or invasive species found within boundaries of these allotments. Noxious and invasive species will take advantage of areas opened up by disturbance. This has generally been found where other native populations have been removed by some kind of soil surface disturbance, followed by drought. Re-establishment of good vegetative cover provides competition for noxious species, reducing their success. Livestock will avoid grazing these plants as they may develop spines off of bracts below flowers are toxic or have low palatability, making these plants very unattractive. Careful grazing management will reduce areas open to invasion. Grazing management will also provide early detection of new populations which may occur.

12. **Floodplains:** No impacts to floodplains are known. By keeping structures out of floodplains, impacts should not occur.

B. Impacts of the No Livestock Grazing Alternative.

1. **Soil**

Soil compaction would be reduced on this allotment around old trails and bedding grounds. There would be a small reduction in soil loss on this allotment.

2. Vegetation

It is expected that the number of plant species found within these allotments will remain the same, however, there would be small changes in relative percentages of these species. Vegetation will continue to be utilized by wildlife. There would be an increase in amounts of standing vegetation.

3. Wildlife

Conflicts between wildlife and livestock for habitat and dietary needs would not exist under this alternative.

4. Livestock Management

Forage from public land would be unavailable for use by the permitees. This would have a significant adverse economic impact to the livestock operation. If the No Grazing alternative is selected, owner of the livestock would be responsible for ensuring that livestock do not enter Public Land [43 CFR 4140.1(b)(1)]. Intermingled land status on this allotment makes it economically unfeasible to fence out public land and use only private land. Remaining private land could not support numbers of livestock currently authorized and lower number of livestock would not provide level of potential income operator is accustomed to.

5. **Visual Resources**

There would be no change in visual resources.

6. Water Quality

There could be a slight improvement in water quality due to minor reductions in sediment loading during storm-flow.

7. Air Quality

There would be a slightly less dust under this under this alternative versus proposed alternative, but this would be negligible when considering all sources of dust.

8. **Recreation**

Impacts would be very minor under this alternative. No positive impacts from livestock watering locations would occur.

9. Caves/Karst

Impacts would be the same as proposed action if no significant caves are found.

10. **Non-native and Invasive Species**

There would be no change in existing non-native/invasive species populations.
However, if native grasses and vegetation are removed by an unforeseen soil disturbance, new infestations may occur.

11. **Floodplains:**

Impacts would be the same as proposed action.

\V. Public Land Health

Public Land (RHA) Rangeland Health Assessments were completed on these allotments in 2006. Based on these assessments and monitoring data, a Determination was made that public land within these livestock grazing allotments are in conformance with New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management. A copy of these assessments can be accessed at www.nm.blm.gov/rfo/index.htm.

VI. Cumulative Impacts

All allotments that have permits/leases with the BLM will undergo scoping and analysis in conformance with NEPA. These allotments are surrounded by others that will undergo this process. If the proposed action is selected, there would be no change in cumulative impacts since it does not vary from current situation.

If the no livestock grazing alternative is selected, there would be little change in cumulative impact as long as surrounding allotments continue to be stocked at their current level. If permitted numbers are reduced on surrounding ranches as well, economics of surrounding communities and/or minority/low income populations would be negatively impacted.

The No Grazing alternative was considered, but not chosen in the Rangeland Reform Environmental Impact Statement (EIS) Record of Decision (ROD) (p. 28). Elimination of grazing in the Roswell Field Office Area was also considered but eliminated by the Roswell RMP/ROD (pp. ROD-2).

VII. Residual Impacts

Vegetative monitoring studies have shown that grazing, at current permitted numbers of animals, is sustainable. If mitigation measures are enacted, there would be no residual impacts to the proposed action.

VIII. Socio-Economic Impacts

A description of economic, social and cultural conditions by geographic region within New Mexico can be found in 2000 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management Final EIS. Impacts of authorizing grazing for these allotments under this Proposed Alternative on economic, social and cultural conditions of southeast New Mexico would be positive. On a smaller scale, impacts of authorizing grazing for these allotments, under the Proposed Action on economic, social and cultural conditions would also be positive.

IX. Mitigating Measures

Vegetation monitoring studies will continue to be conducted and permitted numbers of livestock will be adjusted if necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken at that time to mitigate those impacts.

IX. BLM Team Members

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